October 8, 1998

Search for JoAnn Crandall for client 11998.5us01.

English abstract for JP 1-145066.

ACB

File 351:DERWENT WPI 1963-1998/UD=9839;UP=9836;UM=9834 (c)1998 Derwent Info Ltd

S1 1 AN="US 98226-1987"

1/7/1

DIALOG(R)File 351:DERWENT WPI (c)1998 Derwent Info Ltd. All rts. reserv.

007842543

WPI Acc No: 89-107655/198915

Removing gas from inside heart - involves hollow needle inserted through

skin and connected to pump

Patent Assignee: EVANS P H (EVAN-I)

Inventor: EVANS P H

Number of Countries: 006 Number of Patents: 008

Patent Family:

Patent No Kind Date Applicat No Kind Date Main IPC
DE 3831540 A 19890406 DE 3831540 A 19880916
FR 2620337 A 19890317
GB 2209678 A 19890524 GB 8821226 A 19880909
US 4834707 A 19890530 US 8798226 A 19870916
CH 678277 A 19910830
GB 2209678 B 19920325 GB 8821226 A 19880909
199213

CA 1299454 C 19920428 CA 577254 A 19880913 A61M-001/10 199222 DE 3831540 C2 19930624 DE 3831540 A 19880916 A61M-001/00 199325

Priority Applications (No Type Date): US 8708226 A 10870016

Priority Applications (No Type Date): US 8798226 A 19870916 Patent Details:

Patent Kind Lan Pg Filing Notes Application Patent DE 3831540 A 9 US 4834707 A 10 DE 3831540 C2 11

Abstract (Basic): DE 3831540 A

The instrument is for the mechanical strengthening of the heart and improving the condition, at least temporarily, of heart defects such as congestion. The instrument consists of a hollow needle which is inserted through the skin into a chamber of the heart.

The proximal end of the needle is connected to a pump which removes gas which has accumulated in the heart chamber. The needle has a filter to prevent the outflow of blood.

USE/ADVANTAGE - The presence of gas in the heart chambers reduces the rate at which the heart can pump blood. Removal of the gas increases the pumping efficiency of the heart.

0/10

Abstract (Equivalent): DE 3831540 C

The instrument is for the mechanical strengthening of the heart and improving the condition, at least temporarily, of heart defects such as congestion. The instrument consists of a hollow needle which is

inserted through the skin into a chamber of the heart.

The proximal end of the needle is connected to a pump which removes gas which has accumulated in the heart chamber. The needle has a filter to prevent the outflow of blood.

USE/ADVANTAGE - The presence of gas in the heart chambers reduces the rate at which the heart can pump blood. Removal of the gas increases the pumping efficiency of the heart. (9pp Dwg.No.0/10) Abstract (Equivalent): GB 2209678 B

Blood gas venting apparatus comprising an elongate tubular housing adapted for introduction into a heart chamber and having an inlet and an outlet and a tip adapted to puncture the skin, filter means within said housing to permit the passage of gases and to prevent the passage of liquids into said housing, said filter means being removably retained in said housing and replaceable without removing said housing tip from the skin, flexible conduit means communicating with the interior of said housing for venting gases from the heart, attachment means for connecting pumping means to said flexible conduit means outside the skin to facilitate removal of gases and stop means to halt flow through said flexible conduit.

Abstract (Equivalent): US 4834707 A

The apparatus for mechanically enhancing heart functions has an elongated hollow tubular housing having an inlet and an outlet and a tip adapted to puncture the skin. There is a filter within the housing adequate to permit the passage of gases and prevent the passage of liquids into the housing. A flexible conduit communicates with the interior of the housing for venting gases from the heart.

The filter is removably retained in the housing and replaceable without removing the housing tip from the skin. A removable guide is positioned within the flexible conduit. An attachment connects the pump to the flexible conduit means outside the skin to facilitate removal of gases. (10pp)e

Derwent Class: P34

International Patent Class (Main): A61M-001/10 International Patent Class (Additional): A61M-001/34